

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-2 (canceled)

Claim 3 (currently amended): The high-throughput method ~~of according to claim 21 + wherein~~
~~said high-throughput manner comprises~~ comprising the use of an automated stainer.

Claim 4 (canceled)

Claim 5 (currently amended): The method according to claim 21 + wherein said clinical utility
comprises utility as a diagnostic marker for determining whether a patient will respond to a
particular therapy.

Claim 6 (currently amended): The method according to claim 5 wherein said therapy is a drug
that interacts with at least one ~~said~~ target molecule.

Claim 7 (currently amended): The method according to claim 21 + wherein said clinical utility
comprises validation that said at least one target molecule is relevant in a particular tissue for
purposes of treatment selection.

Claim 8 (currently amended): The method of claim 21 + wherein said at least one ~~a plurality of~~
target molecules ~~are~~ may be provided from a plurality of sources.

Claims 9-10 (canceled)

Claim 11 (currently amended): The method according to claim 23 ~~40~~ wherein said at least one target molecule is a particular DNA or RNA sequence ~~array comprises a plurality of different oligonucleotides mounted to a solid support.~~

Claim 12 (currently amended): The method according to claim 23 ~~40~~ wherein said array comprises a plurality of different tissue samples mounted to a solid support.

Claim 13 (canceled)

Claim 14 (currently amended): The method according to claim 23 ~~40~~ wherein said instrument comprises:

a first heater for heating a first slide; and

a second heater for heating a second slide ~~slide~~;

wherein said first heater is capable of heating said first slide to a temperature different from the temperature of said second slide.

Claim 15 (currently amended): The method ~~apparatus~~ of claim 14 wherein said first and second heaters are mounted to a carousel.

Claim 16 (currently amended): The method ~~apparatus~~ of claim 14 ~~and~~ wherein said instrument further comprises a ~~comprising~~ means for monitoring and controlling the temperature of said first and second heaters.

Claim 17 (currently amended): A tissue microarray comprising:

A. a solid surface;

B. a plurality of different tissues mounted to said solid surface; and

C. a machine readable marking for identifying how said tissues are to be treated by a staining instrument ~~said machine~~.

Claim 18 (original): The tissue microarray according to claim 17 wherein said machine readable marking is a bar code label.

Claim 19 (original): The tissue microarray according to claim 17 wherein said solid surface is a glass microscope slide.

Claim 20 (currently amended): The tissue microarray according to claim 17 wherein said treatment comprises automated staining of said tissues by said instrument ~~machine~~.

Claim 21 (new): A high-throughput method for evaluating the clinical utility of at least one target molecule comprising providing a plurality of tissue microarrays; providing said at least one target molecule; providing a stain that specifically binds to said at least one target molecule *in situ*; applying, in a high-throughput manner, said stain to said tissue microarrays; determining the extent to which said stain has bound to said at least one target molecule in said tissue microarrays; correlating the extent of stain binding with the clinical utility of said at least one target molecule.

Claim 22 (new): A high-throughput method for determining the clinical utility of target molecules from a plurality of sources comprising providing a plurality of tissue microarrays; providing a plurality of target molecules from a plurality of sources; providing stains that specifically bind to said target molecules; applying said stains to said tissue microarrays; determining the extent to which said stains have bound to said target molecules in said tissue microarrays; correlating the extent of stain binding with the clinical utility of the target molecules.

Claim 23 (new): A high-throughput method for determining whether at least one target molecule has clinical utility comprising providing a stain that specifically binds to said at least one target molecule in a tissue sample, wherein said at least one target molecule was identified using an array; providing an instrument for automatically applying said stain to said tissue sample; applying said stain to said tissue sample using said instrument; determining the extent to which said stain has bound to said at least one target molecule; correlating the extent of stain binding with the clinical utility of said at least one target molecule.